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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,479	08/23/2001	Yoko Fujiwara	018656-241	8426

7590 08/23/2005

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EXAMINER	
BRIER, JEFFERY A	
ART UNIT	**PAPER NUMBER**
2672	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/934,479	FUJIWARA ET AL.	
	Examiner	Art Unit	
	Jeffery A. Brier	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34 and 37-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34 and 37-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on 6/14/2005 has been entered.

Response to Arguments

2. Applicant's arguments, see pages 12 and 13, filed 6/14/2005, with respect to the 35 USC 112 first paragraph and second paragraph rejections have been fully considered and are persuasive in view of the amendments made to the claims.

3. Applicant's arguments, see pages 13 and 14, filed 6/14/2005, with respect to the 35 USC 101 rejection have been fully considered but they are not persuasive because claims 1-16, 18-23, 27-29, 31-34, 37, 38, 40, and 41 as well as method claims 17, 24-26, 30, and 39 do not claim a concrete tangible and useful result.

4. The arguments for method claims 17, 24-26, 30, and 39 are additionally not persuasive because they cover mental steps. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). MPEP 2111 states: (Claim 9 was directed to a process of analyzing data generated by mass spectrographic analysis of a gas. The process comprised selecting the data to be analyzed by subjecting the data to a mathematical manipulation. The examiner made rejections under 35 U.S.C. 101 and 102. In the 35 U.S.C. 102 rejection, the examiner explained that the claim was anticipated by a mental process augmented by pencil and paper markings. The court agreed that the claim was not limited to using a machine to carry out the process since the claim did not explicitly set forth the machine. The court explained that "reading a

claim in light of the specification, to thereby interpret limitations explicitly recited in the claim, is a quite different thing from reading limitations of the specification into a claim,' to thereby narrow the scope of the claim by implicitly adding disclosed limitations which have no express basis in the claim." The court found that applicant was advocating the latter, i.e., the impermissible importation of subject matter from the specification into the claim.). Thus, even though the specification may have a computer, a device, a circuit, etc perform the claimed method it would be inappropriate to read these limitations into these method claims, thus, the method claims must be amended to avoid covering mental steps.

5. Applicant's arguments concerning Fukui filed 6/14/2005 have been fully considered but they are not persuasive because Fukui does teach to one of ordinary skill in the art to generate character codes when the characters are recognized after scanning, column 3 lines 17-24 and 39-43, the contextual analysis would be analyzing character codes to determine the titles, headers, and articles.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-34 and 37-41 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Method claims 17, 24-26, 30, and 39:

Independent claim 17 is a method claim that is not limited to a computer implemented process, thus, it covers mental steps which is clearly unstatutory. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969).

Claims 1-34 and 37-41:

This application is directed to a useful, concrete, and tangible result, however, these claims are not. These claims are directed to manipulating abstract ideas and mental steps. Independent claim 9 is a program claim whose intended but not actual use is to cause a computer to execute image processing steps. Independent claim 17 is a method claim that is not limited to a computer implemented process, thus, it covers mental steps which is clearly unstatutory. Independent claim 1 is a means plus function claim, thus, it claims that which is disclosed in the specification for performing the functions but it also claims equivalent means. Independent claims 27, 32, and 33 are directed to a circuit. The CAFC clearly wrote in State Street at paragraph 4 *The question of whether a claim encompasses statutory subject matter should not focus on which of the four categories of subject matter a claim is directed to -- process, machine, manufacture, or composition of matter--but rather on the essential characteristics of the subject matter, in particular, its practical utility.* These claims are not limited to a practical application such as displaying the processed image on a display device, storing the processed in a computer readable memory for later presentation of the image to a user, printing the processed image on a medium by the use of a computer

controlled printer, user a computer scanner to scan a document to be image processed, etc. These are examples of a concrete useful and tangible results of a processed image. Applicants' specification at page 4 lines 13-23 states:

> This image processing device also may be provided with file generation means for generating an electronic file storing the character code data laid out by the layout means.
> This image processing device also may be provided with a printer for printing the character code data laid out by the layout means on a recording substrate.
> This image processing device also may be provided with a reader for reading image data to be processed by optically reading an image of a document.

Applicants' specification at page 18 lines 6-13 states:

> In step S216, the document data 34 (refer to FIG. 11) which has been completed by arranging the headline character code data 30, the body text character code data 32, and the photographic image area 20 within the rectangular vector data 26, are stored on hard disk 150 as an electronic file. The document data 34 also may be saved on a flexible disk or the like via the recording media drive 160.

Applicants' specification at page 20 lines 15 to page 21 line 2 states:

> The image processing device also may have, in addition to the structure shown in FIG. 1, an interface for sending and receiving data between the image processing device and other information devices. In this way a generated document data 34 (refer to FIG. 11) may be transmitted to another information device such as a computer, printer or the like.
> The image processing device also may have, in addition to the structure shown in FIG. 1, a printer engine for printing data on recording substrate such as cut paper, OHP transparencies, roll paper and the like. In this way a generated document data 34 may be printed on recording substrate.

Thus, applicants specification describes practical utility for the invention.

Dependent claims 6-8 and 14-16:

These dependent claims broadly claim "an electronic file storing the character code data", "a printer for printing the character code data", and "a reader for optically reading

an image of a document" however, they are so broad they read on a human being recognizing the character code, storing the code in his memory, and printing with pen and paper. Therefore these claims need to be more further limiting to that which is not done by a human's mind and that which is not done by a human with pen and paper. State Street Bank & Trust Co. v. Signature Financial Group Inc. (CA FC) 47 USPQ2d 1596, 1603 (7/23/1998). AT&T Corp. v. Excel Communications Inc. (CA FC) 50 USPQ2d 1447. On page 1603 first paragraph the CAFC wrote in State Street:

> Under Benson, this may have been a sufficient indicium of nonstatutory subject matter. However, after Diehr and Alappat , the mere fact that a claimed invention involves inputting numbers, calculating numbers, outputting numbers, and storing numbers, in and of itself, would not render it nonstatutory subject matter, unless, of course, its operation does not produce a "useful, concrete and tangible result." Alappat , 33 F.3d at 1544, 31 USPQ2d at 1557. 7

On page 1603 paragraph labeled [4] the CAFC wrote:

> [4] The question of whether a claim encompasses statutory subject matter should not focus on which of the four categories of subject matter a claim is directed to -- process, machine, manufacture, or composition of matter--but rather on the essential characteristics of the subject matter, in particular, its practical utility. Section 101 specifies that statutory subject matter must also satisfy the other "conditions and requirements" of Title 35, including novelty, nonobviousness, and adequacy of disclosure and notice. See In re Warmerdam , 33 F.3d 1354, 1359, 31 USPQ2d 1754, 1757-58 (Fed. Cir. 1994).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-34 and 37-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukui et al., U.S. Patent No. 5,179,650.

Both applicant's system and Fukui's system scans a newspaper or similar document, analyzes the document's characters, drawings, and photos, alters the block containing the characters which is a portion of the entire scanned image, and alters the layout of the characters in the altered block. Fukui further teaches with regard to figure 17 processing the character, drawings and photo blocks and reconstructing the character, drawings and photo blocks into an area of two pages which is less than the entire image of three pages. Applicant needs to further amend claims 1, 9, 17, and 27 to distinguish the claims from Fukui.

Fukui does teach to one of ordinary skill in the art to generate character codes when the characters are recognized after scanning, column 3 lines 17-24 and 39-43, the contextual analysis would be analyzing character codes to determine the titles, headers, and articles.

A detailed analysis of the claims follows.

Claim 1:

Fukui teaches an image processing device (*see figure 1*) comprising:

extraction means (*scanner 10, column 3 lines 17-24 describes input unit 10 as a scanner*) for extracting at least one document block (*Figure 17 shows several blocks of the image extracted to perform individual processing on each block.*), wherein the extracted at least one document block contains a specific image (*column 3 lines 17-24 further describes article data which is character data, graphic data and image data*) to be processed, (*the block containing the characters it to be processed*) from among an entire image (*Each block is from a portion of the image. Each block containing the characters or graphics or image is a portion of the entire scanned image.*);

generating means for generating character code data for a character image within the at least one document block (*Step 103 extracts numeral codes and other character like codes, column 4 lines 43-44. In Fukui's system scanner 10 scans the image of the document in order to be able to perform the analysis of the image data to determine key word and number of letters, character codes would have to be known for the article data, column 8 lines 11-28. Fukui does teach to one of ordinary skill in the art to generate character codes when the characters are recognized after scanning, column 3 lines 17-24 and 39-43, the contextual analysis would be analyzing character codes to determine the titles, headers, and articles.*);

reconstruction means for reconstructing the at least one document block in a specific shape *(figures 15A, 15B, and 15C illustrates reconstructing the article block to*

better fit the document page, figure 2b illustrates a flowchart depicting the processing performed in the means of figure 1 for determining the layout article block) based on the extracted at least one document block (*the block containing the characters is an extracted document block portion of the entire scanned image*), wherein all the reconstructed document blocks are together less than the entire image (*Figure 17 shows and column 8 lines 29-45 describes how the scanned blocks on the three pages are reorganized by the processing onto two pages. Thus, the blocks of the entire image are now reconstructed into less than the entire image of three pages. Note column 8 lines 29-34 describes the reconstructed document has an area less than the total area of the document before reconstruction because at least the subordinate elements were reduced in area. Also note applicants' claimed figure is actually a photographic image which corresponds to the blank image shown on page 3 of the document in Fukuis' figure 17 and which is not reproduced in the two pages of the processed document as shown in Fukuis' figure 17.*); and

layout means for laying out the character code data corresponding to the character code generated by the generating means within the at least one reconstructed document block (*the article data represented by numeral codes, character codes, is laid out to fit the reconstructed article block*).

Claim 2:

Fukui teaches an image processing device as claimed in claim 1, wherein the extraction means extracts a plurality of document blocks (*column 3 lines 27-43 describes the many blocks in the image, titles, headers, articles, sections*), and the reconstruction means arranges the plurality of extracted document blocks into a single block (*see figures 15A, 15B, and 15C)* reconstructed to the specific shape (*one page of the document*).

Claim 3:

Fukui teaches an image processing device as claimed in. claim 1, wherein the specific image includes a character image of a headline (*title*) and a character image of body text (*article corresponding to the title*) corresponding to the headline.

Claim 4:

Fukui teaches an image processing device as claimed in claim 3, further comprising headline character (*title*) arrangement means (*steps 115-118*) for arranging character code data corresponding to the character image of the headline at a specific position within the at least one reconstructed document block.

Claim 5:

Fukui teaches an image processing device as claimed in claim 1, wherein the reconstruction means adjusts a vertical or horizontal dimension (*figures 15A, 15B, and*

15C show one long column becoming two columns of the same vertical and horizontal dimensions) of the at least one document block to a length approximating a natural integer multiple of a length (*vertical or horizontal*) of one column of multiple columns formed within the at least one document block.

Claim 6:

Fukui teaches an image processing device as claimed in claim 1, further comprising file generation means for generating an electronic file storing the character code data laid out by the layout means (*display unit 90 displays the output of step 119, since figure 2b performs many processes on many characters, see step 113, before step 119 occurs an electronic file for storing the character codes is needed to accumulate the results of the steps 111-118*).

Claim 7:

Fukui teaches an image processing device as claimed in claim 1, further comprising a printer (*column 4 line 13*) for printing the character code data laid out by the layout means (*column 7 lines 64-68*) on recording substrate (*inherently the printer prints on paper which is a recording substrate since the paper maintains the image of the characters*).

Claim 8:

Fukui teaches an image processing device as claimed in claim 1, further comprising a reader (column 3 line 23 describes data input unit 10 as a scanner which inherently is a reader of images on a substrate) for optically reading (since the documents scanned are readable by humans then the scanner is optical) an image (*illustrated in figures 3A, 3B and 3C*) of a document to obtain the image data to be processed.

Claim 9:

Claim 9 is a computer readable medium for storing a program for causing a computer to execute image processing claim which corresponds to image processing device claim 1 and claims the same functions that claim 1 claims, thus, claim 9 is rejected for the reasons given for claim 1. This application is directed to computers, see column 1 lines 17-25, additionally Fukui's figure 1 illustrates a computer since it computes and the flowcharts illustrated in Fukui's figures 2a and 2b represent a program that controls the computer of figure 1.

Claims 10-16:

Claims 10-16 correspond respectively to claims 2-8, thus, claims 10-16 are rejected for the reasons given for claims 2-8.

Claim 17:

Claim 17 is an image processing method claim corresponding to the functions performed by computer program claim 9 and image processing device claim 1, thus, claim 17 is rejected for the reasons given for claims 1 and 9.

Claims 18, 21 and 24:

Fukui at column 3 lines 17-24 and 27-43 describes the input data as article data, graphic data and image data which are classified according to distinct physical, structural, and denotative characteristics of different parts of a document to be edited. Column 5 lines 4-9 and column 8 lines 29-45 described detecting various areas of the scanned document and processing each area separately to fit resized blocks. Each of the different areas of the document corresponding to different articles, graphics, and images are visually different from each other. For example an image such as element 6 and another image such as element 7 illustrated in figure 17 are visually different, thus, they are a marked portion of the entire image. Therefore, Fukui teaches the claimed wherein the extracted document block is a marked portion of the entire image. This claim broadly claims a marked portion, thus, the visual differences between a portion of the image having text and a portion of the image having a figure meets the limitation of marked. The claim does not claim the specific mark described at page 9 lines 12-23.

Claims 19, 22 and 25:

Column 4 lines 31 to column 5 line 3 discusses steps 102-104 which analyzes the title and the document, thus, Fukui teaches analyzing the title and body of text as a character block while the graphics and image blocks are analyzed in different portions with regard to the discussion of figure 17 at column 8 lines 29-45. Therefore, Fukui teaches the claimed wherein the extracted document block also includes a photographic image area that is extracted and laid out with the character code data.

Claims 20, 23 and 26:

Column 5 lines 4-11 describes a document formed by articles which is character data and graphics which is at least photographic image data as being processed to form a document with graphic data and character data. Therefore, Fukui teaches the claimed wherein the extracted document block also includes a photographic image area that is extracted and laid out with the character code data.

Claim 27:

This claim is an device claim version of claim 1 which claims the same functions that claim 1 claims. This claim is rejected for the reasons given for claim 1. Additionally Fukui teaches the circuit limitations of the claim because Fukui is an apparatus that is formed of circuits performing the image processing functions.

Claim 28:

Fukui teaches an image processing device as claimed in claim 1, wherein an area of the reconstructed at least one document block is the same as a total area of the extracted at least one document block (*Fukui teaches to one of ordinary skill in the art the following: enlarging the area of the extracted document to fit an enlarged document area, reducing the area to the extracted document to fit a reduced document area, and maintaining the area of the extracted documents when its area is the same as the desired document area. Column 3line 65 to column 4 line 5 teaches this because a "prescribed layout pattern" includes a layout area that is larger than the document's layout area, includes a layout area that is smaller that the document's layout area, and includes a layout area that is the same size a the document's layout area.*).

Claims 29-31:

These claims claim the same function that claim 28 claims and these claims are rejected for the same reasons given for claim 28.

Claim 32:

This claim is a device claim version of claim 1 which claims the same functions that claim 1 claims. This claim is rejected for the reasons given for claim 1. Additionally Fukui teaches the at least one circuit for limitation of the claim because Fukui is a apparatus that is formed of at least one circuit for performing the image processing functions.

Claim 33:

Fukui teaches extracting at least one document block from an entire image, the at least one document block being identified by a perimeter and containing a specific image to be processed because headlines, text body, and other elements have perimeters that identify those areas from other areas as separate areas. The user of the system, which includes the system designer, creates or loads the relationship extraction rule dictionary and the editing rule dictionary 72 which is a way of establishing a perimeter.

Fukui teaches an image processing device (*see figure 1*) comprising:

at least one circuit for (*Fukui is a apparatus that is formed of at least one circuit for performing image processing functions.*);

extracting at least one document block from an entire image (*Figure 17 shows several blocks of the image extracted to perform individual processing on each block. Column 3 lines 17-24 further describes article data which is character data, graphic data and image data. Each block containing the characters or graphics or image is a portion of the entire scanned image.*), the at least one document block being identified by a perimeter (H*eadlines, text body, and other elements have perimeters that identify those areas from other areas as separate areas.*) and containing a specific image (H*eadlines, text body, and other elements.*) to be processed, the perimeter being established by the user beforehand (*The claim does define the perimeter, therefore, when the user of the system, which includes the system designer, creates or loads the relationship extraction*

rule dictionary and the editing rule dictionary 72 the user has established the perimeter beforehand.);

generating character code data for character images within the at least one document block (*Step 103 extracts numeral codes and other character like codes, column 4 lines 43-44. In Fukui's system scanner 10 scans the image of the document in order to be able to perform the analysis of the image data to determine key word and number of letters, character codes would have to be known for the article data, column 8 lines 11-28. Fukui does teach to one of ordinary skill in the art to generate character codes when the characters are recognized after scanning, column 3 lines 17-24 and 39-43, the contextual analysis would be analyzing character codes to determine the titles, headers, and articles.*);

reconstructing the at least one document block in a specific shape based on the at least one extracted document block (*The reconstructed shape of each block is based upon the extracted shape.*); and

laying out the character code data within the reconstructed at least one document block (*The article data represented by numeral codes, character codes, is laid out to fit the reconstructed article block*).

Claim 34:

Fukui teaches the image processing device of claim 33, wherein the perimeter is established by the user before the extracting step on an original document using a drawing instrument (This claim can be interpreted several ways.

First: *When the user of the system creates an original document the user has established in the original document a perimeter by using the drawing instrument used to create the original document. The claim does not distinguish from forming a perimeter at the time the original document is created or after the original document has been created. The form the perimeter takes in not defined in the claim.*

Second: When the user creates or loads the relationship extraction rule dictionary and the editing rule dictionary 72 the user has established the perimeter beforehand by the use of a user interface with the image processing device.).

Claims 37-41:

Fukui teaches wherein the entire image includes at least one image in an area outside the at least one document block with reference to figure 17 which shows on the last page a "protruding portion".

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffery A Brier whose telephone number is (571) 272-7656. The examiner can normally be reached on M-F from 7:00 to 3:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi, can be reached at (571) 272-7664. The fax phone Number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeffery A Brier
Primary Examiner
Art Unit 2672